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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,589	10/15/2001	Herbert Zegg	ANDPAT/157PC	6343

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EXAMINER

KIM, SUN U

ART UNIT PAPER NUMBER

1723

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,589

Applicant(s)

ZEGG, HERBERT

Examiner

John Kim

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1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-6 is/are rejected.
- 7) ☒ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. The drawings are objected to because the labels for Figures 1-8 are poor. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstracts of Japan, Vol. 18, No. 575, C-1268 (1994) corresponding to Japanese Patent No. 6-210295 (hereinafter referred to as JP '295) in view of admitted prior art description by the applicant, page 2, lines 5-13 of the specification. JP '295 teaches a method for crossflow filtration of a fluid using a filtration device having a plurality of overlapped rotating membrane discs (34) mounted on at least first and second hollow shafts (36) comprising the steps of rotating hollow shafts (36) and the membrane discs (34) mounted thereon at a rotational speed via motor (40) (see figures 1-2), introducing water (22) into at least the overlap area of the filtration device, creating turbulence on the surface of a membrane, filtering water through the membrane discs, collecting and discharging permeate from hollow shafts (36) and discharging concentrate via outlet (14) (see figure 1; abstract). Claim 1 essentially differs from the method of JP '295 in reciting the step of creating overflow speeds at the membrane surfaces in the range of 1 to 5 m/s. Applicant admitted that a circumferential speed of 2.2 m/s is mentioned for the disc in JP '295 and this would cause overflow speeds in the range of approximately 1 m/s for the mentioned

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operating mode and overlapping (see page 2, lines 5-13 of the specification). JP '295 teaches that water is filtered in a condition that the polarization of density is restricted as a rapid current and a turbulence generate on the surface of a membrane and flocculating agent and pH adjusting agent are mixed by a gyrating current generated by rotation of the membrane discs (34) (see abstract). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to increase the overflow speeds greater than 1 m/s to generate rapider current and greater turbulence on the surface of membrane to further restrict the polarization of density as water is filtered. Regarding claim 2, the cross-section of the circular membrane discs (34) is rectangular (see figure). Regarding claim 4, JP '295 shows a separate motor (40) for hollow shafts (36) and it would have been obvious to a person of ordinary skill in the art to provide membrane discs (34) having different rotational speeds so long as these rotational speeds generates gyrating current to mix flocculating agent and pH adjusting agent. Regarding claims 5-6, applicants admitted that JP '625 is an open system in which the filtrate is extracted by vacuum (see page 2, lines 6-7 of the specification).

4. Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References cited on PTO-892 are prior arts cited on the international search report of PCT/EP00/00750. These references were submitted by applicants with the instant application.

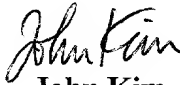
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is (703) 308-2350. The examiner can normally be reached on weekdays from 7:00 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for official response is (703) 872-9306.

When sending a draft amendment by fax, please mark the paper as "DRAFT"; otherwise, mark the paper "OFFICIAL". This will expedite the processing of the paper.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.


John Kim
Primary Examiner
Art Unit 1723

J. Kim
September 16, 2003